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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|------------------------|---------------------|------------------|
| 10/806,987 | 03/23/2004 | Gary W. Eisenhower JR. | H0006187-0769 | 2288 |

7590 11/17/2005

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EXAMINER

HUYNH, NAM TRUNG

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2643

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/806,987 | Applicant(s) EISENHOWER ET AL. | |
| | Examiner Nam Huynh | Art Unit 2643 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/6/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-10, 13, 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly et al. (US 2005/0088361) in view of Metcalf et al. (US 2005/0076982).

A. Regarding claims 1, 13, Kelly et al. discloses an electronics component assembly in a tire comprising an antenna block (figure 3, item 28) with a plurality of grooves that maintain a plurality of antennas (figure 3, items 34,30, 36,38). Kelly et al. does not explicitly disclose a top locator block located above the antenna block that comprises a patch that can receive signals from the antennas. Metcalf et al. discloses a post patch assembly for mounting devices in a tire interior comprising a patch mounting assembly and an electronics assembly (page 2, paragraph 014). The electronic devices may include sensors or RFID transponders (page 2, paragraph 015). The structure of the invention of Metcalf et al. could be considered applicant's "top locator block". Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the patch assembly of Metcalf et al. with the electronics component of Kelly et al. in order to allow the versatility to mount a plurality of different devices.

Art Unit: 2643

B. Regarding claims 3, 15, Metcalf et al. discloses that the electronic devices may include sensors or RFID transponders (page 2, paragraph 015).

C. Regarding claims 4, 16, Metcalf et al. discloses that a non-conductive rubber or elastic material encapsulates the antenna and other selected electronic components (page 2, paragraph 0016).

D. Regarding claims 5, 17, Kelly et al. discloses that the mounting member or antenna block may be made of a material that is non-conducting at RF frequencies such as plastic, no non-conducting metals such as ryton (page 7, paragraph 0080).

E. Regarding claims 6-7, 18-19, Kelly et al. discloses that the cover may be of any configuration commonly known in the art (page 10, paragraph 0097). Therefore one of ordinary skill in the art would recognize that is not affected by RF signals or an amorphous thermoplastic polyetherimide material.

E. Regarding claim 8, Kelly et al. discloses two grooves (figure 3, items 36,38).

F. Regarding claim 9, Kelly et al. discloses two antennas (figure 3, items 34,30).

G. Regarding claim 10, Kelly et al. discloses that the mounting member or antenna block is rectangular but could be of any shape (page 6, paragraph 0073).

H. Regarding claim 20, the limitations are rejected as applied to claims 8-10.

3. Claims 2, 11-12, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly et al. (US 2005/0088361) and Metcalf et al. (US 2005/0076982) as applied to claims 1 and 13 above, and further in view of Ohe et al. (US 4,823,141).

A. Regarding claims 2, 11, and 14, the combination of Kelly et al. and Mecalf et al. disclose all the limitations as applied to claims 1 and 13. Kelly et al. further discloses a

Art Unit: 2643

cover that is employed to protect the various components of the electronic component assembly (page 4, paragraph 0057). The combination of Kelly et al. and Mecalf et al. does not explicitly disclose a BNC connector that is electrically connected to the plurality of antennas. Ohe et al. discloses a vehicle antenna system in which a BNC connector is used to connect an antenna system with a coaxial cable (column 5, lines 5-10). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a BNC connector with the combination of Kelly et al. and Mecalf et al. in order to reduce the total size of the antenna system.

B. Regarding claim 12, the limitations are rejected as applied to claims 5-7.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam Huynh whose telephone number is 571-272-5970. The examiner can normally be reached on 8 a.m.-5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 571-272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2643

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NTH
11/8/05


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